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IS 2668 : 2004
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समानान्तर एवं मोर्स टेपर शैंक वाले टी-स्लॉट कटर टैप्ड होल सहित

(दूसरा पुनरीक्षण)

Indian Standard

T-SLOT CUTTERS WITH CYLINDRICAL SHANKS AND WITH MORSE TAPER SHANKS HAVING TAPPED HOLE

(Second Revision)

ICS 25.100.20

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

November 2004 **Price Group 2**

Milling Cutters, Saws, Gear Cutting Tools and Broaches Sectional Committee, MGP 11

NATIONAL FOREWORD

This Indian Standard (Second Revision) which is identical with ISO 3337 2000 'T-slot cutters with cylindrical shanks and with Morse taper shanks having tapped hole' issued by the International Organization for Standardization (ISO) was adopted by the Bureau of Indian Standards on the recommendations of the Milling Cutters, Saws, Gear Cutting Tools and Broaches Sectional Committee and approval of the Medical Instruments, General and Production Engineering Division Council

This standard was first published in 1964 and was first revised in 1978 to bring it in line with ISO 3337 1975 The revision of this standard has again been taken up to align it with latest ISO 3337 2000 by adopting ISO Standard

The text of this ISO Standard has been approved as suitable for publication as an Indian Standard without deviations In this adopted standard certain conventions are, however, not identical to those used in Indian Standards Attention is particularly drawn to the following

a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'

b) Comma (,) has been used as a decimal marker in the International Standard while in Indian Standards, the current practice is to use a point ( ) as the decimal marker

CROSS REFERENCES

In this adopted standard, reference appears to certain International Standards for which Indian Standards also exist The corresponding Indian Standards which are to be substituted in their place are listed below along with their degree of equivalence for the editions indicated

International Standard	*Corresponding Indian Standard*	*Degree of Equivalence*
ISO 296 Machine tools — Self holding taper for tool shanks	IS 1715 2002 Dimensions for self holding tapers (*third revision*)	Not equivalent
ISO 299 Machine tool tables — T-slots and corresponding bolts	IS 2013 1995 T-slots — Dimensions and spacing (*third revision*)	Technically equivalent
ISO 3338-1 Cylindrical shanks for milling cutters — Part 1 Dimensional characteristics of plain cylindrical shanks	IS 8692 (Part 1) 2004 Cylindrical shanks for milling cutters Part 1 Dimensional characteristics of plain cylindrical parallel shanks (*first revision*)	Identical
ISO 3338-2 Cylindrical shanks for milling cutters — Part 2 Dimensional characteristics of flatted cylindrical shanks	IS 8692 (Part 2) 2004 Cylindrical shanks for milling cutters Part 2 Dimensional characteristics of flatted cylindrical shanks (*first revision*)	Modified

At present there is no corresponding Indian Standard to ISO 3338-3 'Cylindrical shanks for milling cutters — Part 3 Dimensional characteristics of threaded shanks' The concerned Sectional Committee reviewed the provisions of this ISO Standard referred in this adopted standard and decided that they are acceptable for use in conjunction with this standard

Unless otherwise specified by the purchaser T-slot cutters with plain shank will be supplied by the supplier

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 1960 'Rules for rounding off numerical values (*revised*)' The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard

IS 2668 : 2004
ISO 3337 : 2000

Indian Standard

T-SLOT CUTTERS WITH CYLINDRICAL SHANKS AND WITH MORSE TAPER SHANKS HAVING TAPPED HOLE

(Second Revision)

1 Scope

This International Standard specifies the dimensions of T-slot cutters with plain or flatted cylindrical shanks, with threaded shanks and with Morse taper shanks having tapped hole

It applies to those tools which are intended for manufacturing T-slots for machine tools for equipment, in accordance with ISO 299.

T-slot cutters with plain cylindrical shanks or flatted cylindrical shanks and with threaded shanks are suitable for the production of slots in accordance with ISO 299 from 5 mm to 36 mm inclusive, those with Morse taper shanks are suitable for the production of slots in accordance with ISO 299 from 10 mm to 54 mm inclusive

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard For dated references, subsequent amendments to, or revisions of, any of these publications do not apply However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below For undated references, the latest edition of the normative document referred to applies Members of ISO and IEC maintain registers of currently valid International Standards

ISO 296, *Machine tools — Self-holding tapers for tool shanks*

ISO 299, *Machine tool tables — T-slots and corresponding bolts*

ISO 3338-1, *Cylindrical shanks for milling cutters — Part 1· Dimensional characteristics of plain cylindrical shanks*

ISO 3338-2, *Cylindrical shanks for milling cutters — Part 2 Dimensional characteristics of flatted cylindrical shanks*

ISO 3338-3, *Cylindrical shanks for milling cutters — Part 3: Dimensional characteristics of threaded shanks*

3 Dimensions

3.1 T-slot cutters with plain cylindrical shanks, with flatted cylindrical shanks and with threaded shanks

See Figure 1 and Table 1.

Plain cylindrical shanks, flatted cylindrical shanks and threaded shanks are in accordance with ISO 3338-1, ISO 3338-2 and ISO 3338-3 respectively.

Indian Standard

T-SLOT CUTTERS WITH CYLINDRICAL SHANKS AND WITH MORSE TAPER SHANKS HAVING TAPPED HOLE

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ISO 299, *Machine tool tables — T-slots and corresponding bolts.*

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ISO 3338-2, *Cylindrical shanks for milling cutters — Part 2· Dimensional characteristics of flatted cylindrical shanks*

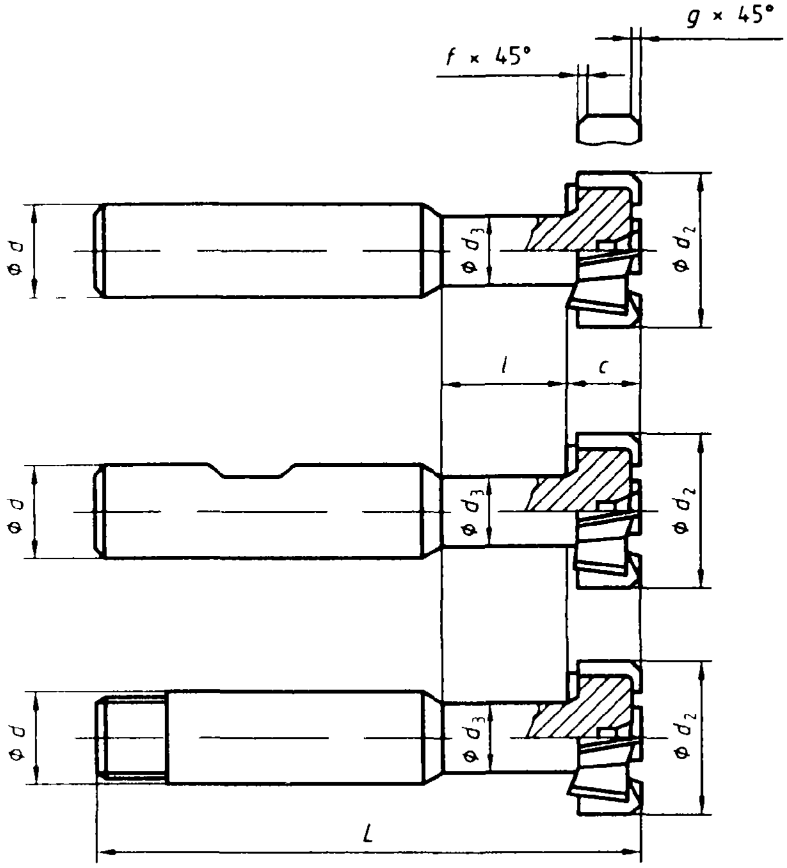
ISO 3338-3, *Cylindrical shanks for milling cutters — Part 3: Dimensional characteristics of threaded shanks*

3 Dimensions

3.1 T-slot cutters with plain cylindrical shanks, with flatted cylindrical shanks and with threaded shanks

See Figure 1 and Table 1.

Plain cylindrical shanks, flatted cylindrical shanks and threaded shanks are in accordance with ISO 3338-1, ISO 3338-2 and ISO 3338-3 respectively.



NOTE Chamfers f and g may be replaced by radii of the same value These are optional configurations

Figure 1

Table 1

Dimensions in millimetres

d_2 h12	c h12	d_3 max	l $^{+1}_{0}$	d_1[a]	L	f max	g max.	**For slot of**
11	3,5	4	6,5	10	53,5	0,6	1	5
12,5	6	5	7		57			6
16	8	7	10		62			8
18		8	13	12	70			10
21	9	10	16		74			12
25	11	12	17	16	82		1,6	14
32	14	15	22		90	1		18
40	18	19	27	25	108		2,5	22
50	22	25	34	32	124			28
60	28	30	43		139			36

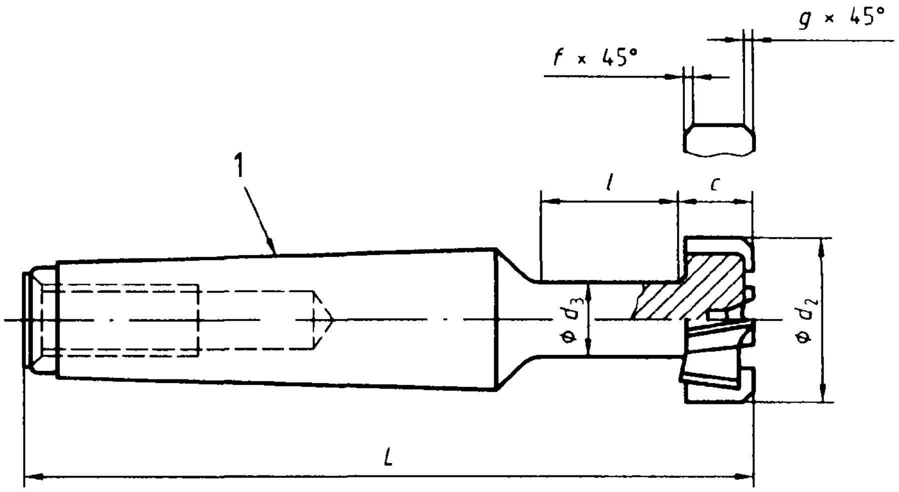
[a] Tolerance on d_1 (in accordance with ISO 3338-1 ISO 3338-2 and ISO 3338-3)

h8 for plain cylindrical shanks,
h6 for flatted cylindrical shanks
h8 for threaded shanks

3.2 T-slot cutters with Morse taper shanks with tapped hole

See Figure 2 and Table 2.

Morse taper shanks have tapers with tapped hole in accordance with ISO 296.



Key

1 Morse taper

NOTE Chamfers f and g may be replaced by radii of the same value These are optional configurations

Figure 2

Table 2

Dimensions in millimetres

d_2 h12	c h12	d_3 max.	l $^{+1}_{0}$	L	f max.	g max.	**Morse taper No.**	**For slot of**
18	8	8	13	82	0,6	1	1	10
21	9	10	16	98			2	12
25	11	12	17	103		1,6		14
32	14	15	22	111	1			18
40	18	19	27	138		2,5	3	22
50	22	25	34	173			4	28
60	28	30	43	188				36
72	35	36	50	229	1,6	4	5	42
85	40	42	55	240	2	6		48
95	44	44	62	251				54

Bibliography

[1] ISO 11529-1:1998, *Milling cutters — Designation — Part 1 Shank type end mills of solid or tipped design.*

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Amendments Issued Since Publication

Amend No	Date of Issue	Text Affected

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